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| 10/562,387 | 05/11/2006 | Christiaan Michiel Ten Bruggenkate | ALG10220P-50 | 8142 |
| 32116 7590 09/08/2010 WOOD, PHILLIPS, KATZ, CLARK & MORTIMER 500 W. MADISON STREET SUITE 3800 CHICAGO, IL 60661 | | | | |
| EXAMINER | | | | |
| EIDE, HEIDI MARIE | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/562,387

Applicant(s)TEN BRUGGENKATE,
CHRISTIAAN MICHEL**Examiner**

HEIDI M. EIDE

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 8-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

The drawings were received on August 30, 2010. These drawings are accepted.

Specification

The amendments to the specification received August 30, 2010 have been accepted and entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3, 8-10, 12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Münch (4,468,200).
2. Münch teaches an intra-osseous implant for placement in bone of a human body comprising at least one intra-osseous part 3 intended for placement in bone tissue having an apical side 13 and a cervical side 2 and composed of a body friendly material (see abstract), which part is provided on its circumferential surface with a screw thread 8 running in the direction of and ending at the apical end, and a support part present at the cervical side of the at least one intra-part is provided with multiple grooves 15 extending in longitudinal direction and over the entire length of the intra-osseous part, interrupting the screw thread into multiple interrupted screw thread parts, the multiple

interrupted screw thread parts serving as retention elements capable of allowing the placement of the implant in longitudinal direction in the bone tissue but preventing the removal of the implant in opposite longitudinal direction out of the bone (col. 4, ll. 34-35), the retention elements being provided with a profile exhibiting a shallow slope toward the apical side and a steep slope on the cervical side (figs. 1, 5). Münch further teaches the depth of the groove is greater than the height of the screw thread (is extends from the screw thread into the body of the implant, figs. 1, 3), the implant characterized in that the grooves are present in an equidistant manner in the circumferential surface (fig. 3), the intra-osseous part has a cylindrical or near cylindrical cross-section (fig. 3), the intra-osseous part becomes smaller in the apical direction (fig. 1) and the implant is a dental implant wherein the support part is provided with at least one bevel 11 on its circumferential edge (figs. 1-2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 4-5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Münch (4,468,200) as applied to claim 1 above, and further in view of Alvaro (6,099,312).
4. Münch teaches the invention as substantially claimed and discussed above, however, does not specifically teach the width of the groove varies in the direction of the

apical side to the intra-osseous part, the depth of the groove varies in the direction of the apical side of the intra-osseous part and more in particular becomes smaller, the width of the groove widens in the direction of the apical side of the intra-osseous part.

5. Alvaro teaches an implant wherein the width of the groove 6' varies in the direction of the apical side to the intra-osseous part (fig. 4) and becomes smaller in the direction of the apical side (col. 2, ll. 62-66). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the shape of the groove taught by Münch with the shape taught by Alvaro as a matter of obvious design choice, since Alvaro teaches the groove with a varied width (fig. 4) and a constant width (fig. 1) which is also taught by Münch.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Münch (4,468,200) as applied to claim 1 above, and further in view of Misch et al. 5,954,504 (Misch).

7. Münch teaches the invention as discussed above, however, does not teach the height of the screw thread varies in the direction of the apical side of the intra-osseous part and more in particular becomes smaller.

8. Misch teaches the height of the screw thread varies in the direction of the apical side of the intra-osseous part and more in particular becomes smaller as illustrated in fig. 5. It would have been obvious to one having ordinary skill in the art at the time of

the invention to modify the screw thread taught by Münch with the screw thread becoming smaller as taught by Misch in order to promote growth of new bone tissue.

9. Claims 11 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Münch (4,468,200) as applied to claim 1 above, and further in view of Kanomi et al (5,921,774).

10. Münch teaches the invention as substantially claimed and discussed above, however, does not specifically teach the intra-osseous part has a polygonal cross section, a hexagonal cross section or an octagonal cross section.

11. Kanomi teaches an implant comprising a polygonal cross section (col. 7, ll. 47-49). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the circular shape of the implant taught by Münch with the polygonal shape taught by Kanomi as a matter of obvious design choice since Kanomi teaches a polygonal shape and a circular shape as taught by Münch. Kanomi does not specifically teach the polygonal cross section is a hexagonal or octagonal cross section; however, it would have been a matter of obvious design choice to choose any known polygon shape, which includes hexagon and octagon, known in the art for the specific polygonal cross section.

12. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Münch (4,468,200) as applied to claim 1 above, and further in view of Lonca (4,722,688).

13. Münch teaches the invention as substantially claimed and discussed above, however, does not specifically teach the support part is positioned under an angle on the intra-osseous part with respect to the direction of the implant.

14. Lonca teaches the support part is positioned under an angle on the intra-osseous part with respect to the direction of the implant as illustrated in figs. 4a-4b (col. 4, ll. 20-23). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the location of the support part taught by Münch with the angled location taught by Lonca in order to provide a prosthetic in desired position preferred by the user.

Response to Arguments

Applicant's arguments filed August 30, 2010 have been fully considered but they are not persuasive. Applicant argues that the prior art of Münch does not teach retention elements allowing placement of an implant in a longitudinal direction into the bone tissue but prevention the removal of the implant in the opposite longitudinal direction out of the bone. However, Münch teaches the thread is for anchoring the implant the implant in the bone tissue (col. 4, ll. 31-34). As illustrated in figs. 1-3, it can clearly be seen the groove 15 interrupts the screw thread forming multiple interrupted screw thread parts which serve as retention elements, since as discussed above, Münch teaches the screw thread retains the implant in the bone. Applicant argues that since Münch teaches the groove 15 as a discharge channel, it is small and insufficient to

establish interrupted screw thread parts which serve as retention elements, however, as illustrated in fig. 2 of the prior art, the groove 15 interrupts the screw thread, and Münch also teaches the screw thread function as a retention element as discussed above, therefore, the claimed limitations are met. Applicant further argues that the claimed language; "or the placement of the implant in longitudinal direction" is claiming the implant is implanted by a pushing action. However, when an implant is screwed into the bone, it is also inserted in a longitudinal direction; therefore the claimed language is not claiming the implant is pushed into place.

15. In response to applicant's argument that the implant is not inserted in a longitudinal direction into the bone tissue, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEIDI M. EIDE whose telephone number is (571)270-3081. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Heidi M Eide/
Examiner, Art Unit 3732
9/2/2010

/Cris L. Rodriguez/
Supervisory Patent Examiner, Art Unit 3732